## REMARKS

Claims 6-8, 10, 13-15, 19, 73-86, 111-113, 115, 118-120, 124 and 149-164 are pending in the application. In the Office Action of January 16, 2003, the Examiner made the following disposition:

A.) Objected to claims 10 and 115.

B.) Rejected claims 73 and 149 under 35 U.S.C. §102(e) as being anticipated by *Furukawa et al.*

C.) Allowed claims 6-8, 13-15, 19, 111-113, 118-120, 124, 163 and 164.

D.) Objected to claims 74-86 and 150-162.

Applicants address the Examiner's disposition below:

A.) Objection to claims 10 and 115:

Claims 10 and 115 have been amended as per the Examiner's request to overcome the objection. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**".

Applicants respectfully submit the objection has been overcome and request that it be withdrawn.

B.) Rejection of claims 73 and 149 under 35 U.S.C. §102(e) as being anticipated by *Furukawa et al.*:

Claims 73 and 149 have been cancelled.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

C.) Allowance of claims 6-8, 13-15, 19, 111-113, 118-120, 124, 163 and 164:

Applicants respectfully acknowledge the Examiner's finding of allowable subject matter in claims 6-8, 13-15, 19, 111-113, 118-120, 124, 163 and 164.

D.) Objection to claims 74-86 and 150-162:

Claims 74, 75, 76, 80, 83, 86, 150, 151, 152, 155, 156, 159 and 162 have been amended to be placed in independent form including all the limitations of their base claims and any intervening claims. Accordingly, claims 10, 74, 75, 76, 80, 83, 86, 150, 151, 152, 155, 156, 159 and 162 are allowable.

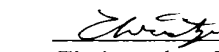
Claims 77-79, 81-82, 84-85, 153-154, 157-158, and 160-161 depend directly or indirectly from claims 74, 75, 76, 80, 83, 86, 150, 151, 152, 155, 156, 159 and 162 and are therefore allowable for at least the same reasons that claim 74, 75, 76, 80, 83, 86, 150, 151, 152, 155, 156, 159 and 162 are allowable.

Applicants respectfully submit the objection has been overcome and request that it be withdrawn.

## CONCLUSION

In view of the foregoing, Applicants respectfully submit that pending claims 6-8, 10, 13-15, 19, 74-86, 111-113, 115, 118-120, 124 and 150-164 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

 (Reg. No. 45,034)

Christopher P. Rauch
SONNENSCHEIN, NATH & ROSENTHAL
P.O. Box #061080
Wacker Drive Station - Sears Tower
Chicago, IL 60606-1080
Telephone 312/876-2606
Customer #26263
Attorneys for Applicant(s)

SONNENSCHEIN NATH & ROSENTHAL
P.O. Box 061080
Wacker Drive Station, Sears Tower
Chicago, IL 60606-1080

Attorney Customer Number: 026263
Phn: (312) 876-2578
Fax: (312) 876-7934

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited as First Class Mail with the United States Postal Service with sufficient postage in an envelope addressed to: Asst. Commissioner for Patents, Washington, D.C. 20231 on April 16, 2003.

Christopher P. Rauch (Reg. No. 45,034)

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

Please amend claims 10, 74, 75, 76, 80, 83, 86, 115, 150, 151, 152, 155, 156, 159 and 162 as follows:

10. (Amended) A light modulation apparatus according to claim [9] 6, wherein the basic frequency and the modulated pulse width are adjusted in such a manner as to prevent the occurrence of flicker in stationary drive of said light modulation apparatus.

74. (Amended) An image pickup apparatus [according to claim 73,] comprising:

a light modulation apparatus including a liquid crystal device, a drive pulse generation unit for driving said liquid crystal device, and a pulse width control unit for modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein said light modulation apparatus is disposed in an optical path of an optical system of said image pickup apparatus; and

wherein the pulse width of each drive pulse is modulated with its pulse height kept constant.

75. (Amended) An image pickup apparatus [according to claim 73,] comprising:

a light modulation apparatus including a liquid crystal device, a drive pulse generation unit for driving said liquid crystal device, and a pulse width control unit for modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein said light modulation apparatus is disposed in an optical path of an optical system of said image pickup apparatus; and

wherein an average per unit time of positive and negative pulse heights of drive pulses applied between drive electrodes of said liquid crystal device upon modulation of the pulse width of each drive pulse is preferably nearly zero.

76. (Amended) An image pickup apparatus [according to claim 73,] comprising:

a light modulation apparatus including a liquid crystal device, a drive pulse generation unit for driving said liquid crystal device, and a pulse width control unit for modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein said light modulation apparatus is disposed in an optical path of an optical system of said image pickup apparatus; and

wherein the modulation of the pulse width of each drive pulse is performed in such a manner that the waveform of each drive pulse is present in a period of a basic frequency.

80. (Amended) An image pickup apparatus [according to claim 73,] comprising:

a light modulation apparatus including a liquid crystal device, a drive pulse generation unit for driving said liquid crystal device, and a pulse width control unit for modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein said light modulation apparatus is disposed in an optical path of an optical system of said image pickup apparatus; and

wherein said liquid crystal device is a guest-host type liquid crystal device.

83. (Amended) An image pickup apparatus [according to claim 73,] comprising:

a light modulation apparatus including a liquid crystal device, a drive pulse generation unit for driving said liquid crystal device, and a pulse width control unit for modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device; and

[further comprising] a polarizing plate disposed in an optical path of light made incident on said liquid crystal device;

wherein said light modulation apparatus is disposed in an optical path of an optical system of said image pickup apparatus.

86. (Amended) An image pickup apparatus [according to claim 73,] comprising:

a light modulation apparatus including a liquid crystal device, a drive pulse generation unit for driving said liquid crystal device, and a pulse width control unit for modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein said light modulation apparatus is disposed in an optical path of an optical system of said image pickup apparatus; and

wherein a drive electrode of said liquid crystal device is formed at least over the entire region of an effective light transmission portion.

115. (Amended) A method of driving a light modulation apparatus according to claim [114] 111, wherein the basic frequency and the modulated pulse width adjusted in such a manner as to prevent the occurrence of flicker in stationary drive of said light modulation apparatus.

150. (Amended) A method of driving an image pickup apparatus [according to claim 149,] in which a liquid crystal device is disposed in an optical path of an optical system of said image pickup apparatus, comprising the step of:

modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein the pulse width of each drive pulse is modulated with its pulse height kept constant.

151. (Amended) A method of driving an image pickup apparatus [according to claim 149,] in which a liquid crystal device is disposed in an optical path of an optical system of said image pickup apparatus, comprising the step of:

modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein an average per unit time of positive and negative pulse heights of drive pulses applied between drive electrodes of said liquid crystal device upon modulation of the pulse width of each drive pulse is preferably nearly zero.

152. (Amended) A method of driving an image pickup apparatus [according to claim 149,] in which a liquid crystal device is disposed in an optical path of an optical system of said image pickup apparatus, comprising the step of:

modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein the modulation of the pulse width of each drive pulse is performed in such a manner that the waveform of each drive pulse is present in a period of a basic frequency.

155. (Amended) A method of driving an image pickup apparatus [according to claim 149,] in which a liquid crystal device is disposed in an optical path of an optical system of said image pickup apparatus, comprising the step of:

modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein luminance information of the light emerged from said liquid crystal device is fed back to a control circuit unit provided in said light modulation apparatus, and the pulse width of each drive pulse is modulated in synchronization with a clock generated by said drive circuit unit on the basis of a control signal supplied from said control circuit unit.

156. (Amended) A method of driving an image pickup apparatus [according to claim 149,] in which a liquid crystal device is disposed in an optical path of an optical system of said image pickup apparatus, comprising the step of:

modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein said liquid crystal device is a guest-host type liquid crystal device.

159. (Amended) A method of driving an image pickup apparatus [according to claim 149,] in which a liquid crystal device is disposed in an optical path of an optical system of said image pickup apparatus, comprising the step of:

modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein a polarizing plate is disposed in an optical path of light made incident on said liquid crystal device.

162. (Amended) A method of driving an image pickup apparatus [according to claim 149,] in which a liquid crystal device is disposed in an optical path of an optical system of said image pickup apparatus, comprising the step of:

modulating a pulse width of each drive pulse to be applied to said liquid crystal device, thereby controlling a transmittance of light made incident on said liquid crystal device;

wherein a drive electrode of said liquid crystal device is formed at least over the entire region of an effective light transmission portion.

Please cancel claims 73 and 149.